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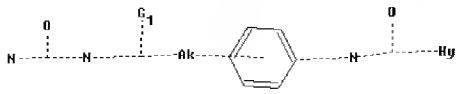

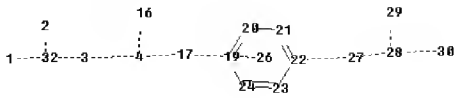

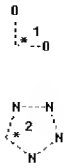

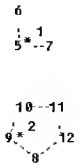

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ring nodes :
8 9 10 11 12 19 20 21 22 23 24
chain bonds :
1-32 2-32 3-4 3-32 4-16 4-17 5-6 5-7 22-27 27-28 28-29 28-30
ring bonds :
8-9 8-12 9-10 10-11 11-12 19-24 19-20 20-21 21-22 22-23 23-24
exact/norm bonds :
1-32 2-32 3-4 3-32 4-16 4-17 5-6 5-7 8-9 8-12 9-10 10-11 11-12 22-27
27-28 28-29 28-30
normalized bonds :
19-24 19-20 20-21 21-22 22-23 23-24
isolated ring systems :
containing 8 : 19 :

G1:[*1],[*2]

Connectivity :
17:2 E exact RC ring/chain
Match level :
1:CLASS 2:CLASS 3:CLASS 4:CLASS 5:CLASS 6:CLASS 7:CLASS 8:Atom 9:Atom
10:Atom
11:Atom 12:Atom 16:CLASS 17:CLASS 19:Atom 20:Atom 21:Atom 22:Atom 23:Atom
24:Atom
26:Atom 27:CLASS 28:CLASS 29:CLASS 30:Atom 32:CLASS
Generic attributes :
30:
Saturation : Unsaturated
Number of Carbon Atoms : less than 7
Number of Hetero Atoms : Exactly 1
Type of Ring System : Monocyclic

Element Count :
Node 30: Limited
C,C5
N,N1

L14 STRUCTURE UPLOADED

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=> d his

L14             STRUCTURE UPLOADED
L16          55 S L14 SSS FULL

     FILE 'CAPLUS' ENTERED AT 16:50:48 ON 11 JUL 2008
L17           4 S L16

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L17  ANSWER 1 OF 4  CAPLUS  COPYRIGHT 2008 ACS on STN
AN   2005:260065  CAPLUS  Full-text
DN   142:316825
TI   Preparation of dioxolane derivatives as cell adhesion inhibitors with
     therapeutic uses
IN   Palle, Venkata P.; Sattigeri, Viswajanani J.; Salman, Mohammad; Soni,
     Ajay; Ray, Abhijit; Dastidar, Sunanda G.
PA   Ranbaxy Laboratories Limited, India
SO   PCT Int. Appl., 132 pp.
     CODEN: PIXXD2
DT   Patent
LA   English
FAN.CNT 1
     PATENT NO.          KIND   DATE        APPLICATION NO.         DATE
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PI   WO 2005026163        A1    20050324    WO 2004-IB3047          20040917
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             GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
             LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,
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             AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
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     IN 2006DN01690      A     20070323    IN 2006-DN1690          20060328
PRAI US 2003-503643P     P     20030917
     WO 2004-IB3047      W     20040917
OS   CASREACT 142:316825; MARPAT 142:316825
GI
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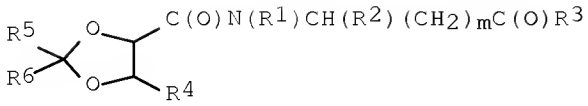

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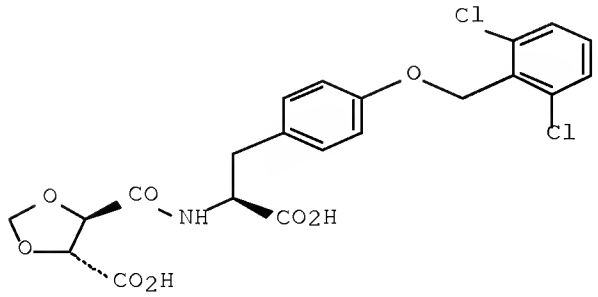


II

AB The present invention relates to dioxolane derivs. (shown as I; variables defined below; e.g. (4R,5R)-5-[[(S)-1-carboxy-2-[4-(2,6-dichlorobenzyloxy)phenyl]ethyl]carbamoyl]-[1,3]dioxolane-4-carboxylic acid (shown as II)), their pharmaceutically acceptable salts, pharmaceutically acceptable solvates, enantiomers, diastereomers, polymorphs or N-oxides as cell adhesion inhibitors (no data). These compds. can be useful for inhibition and prevention of cell adhesion and cell adhesion-mediated pathologies, including inflammatory and autoimmune diseases such as bronchial asthma, rheumatoid arthritis, type I diabetes, multiple sclerosis, allograft rejection or psoriasis. This invention also relates to pharmacol. compns. containing the compds. of the present invention, and the methods of treating bronchial asthma, rheumatoid arthritis, multiple sclerosis, type I diabetes, psoriasis, allograft rejection, and other inflammatory and/or autoimmune disorders, using the compds. For I: m = 0-2; R1 = H, alkyl, alkenyl, alkynyl, cycloalkyl, aryl, aralkyl, heteroarylalkyl, or heterocyclylalkyl; R2 = H, alkyl, alkenyl, alkynyl, cycloalkyl, carboxy, aryl, aralkyl, heteroaryl, heterocyclyl, heteroarylalkyl, or heterocyclylalkyl; R1 and R2 may together join to form a cyclic ring (3-8 membered), which may be optionally benzo-fused, containing 0-4 heteroatoms such as O, S, or N, wherein the rings may be substituted with ≥1 alkyl, alkenyl, alkynyl, (un)substituted amino, cycloalkyl, carboxy, alkoxy, aryloxy, halogen, aryl, aralkyl, heteroaryl, heterocyclyl, heteroarylalkyl or heterocyclylalkyl. R3 = NH2, NHOH, NHOR (R = alkyl, alkenyl, alkynyl, cycloalkyl or aralkyl), or ORm (Rm = H, alkyl, aralkyl, aryl, or metal ions (Na, K, Li, Ca or Mg)); R4 = H, alkyl, alkenyl, alkynyl, cycloalkyl, aryl, aralkyl, heteroaryl, heterocyclyl, heteroarylalkyl, heterocyclylalkyl, -(CH2)1-4-OR' (R'= H, alkyl, alkenyl, alkynyl, aralkyl, aryl, heterocyclylalkyl, or heteroarylalkyl), -C(O)R3, -C(O)Rz (Rz is -NR7R8, R7 and R8 = H (provided that both R7 and R8 are not H, represented as amino), alkyl, alkenyl, alkynyl, aralkyl, cycloalkyl, hydroxyalkyl, aralkyloxy, aryl, heteroaryl, heterocyclyl, heteroarylalkyl, heterocyclylalkyl, SO2R9 (R9 = alkyl, alkenyl, alkynyl, cycloalkyl, aralkyl, aryl, heterocyclyl, heteroaryl, heteroarylalkyl, heterocyclylalkyl)). Or R7 and R5 may together join to form a cyclic ring (3-8 membered), which may be optionally benzo-fused, containing 0-4 heteroatoms such as O, S, or N, wherein the rings may be substituted with ≥1 of alkyl, alkenyl, alkynyl, (un)substituted amino, cycloalkyl, carboxy, alkoxy, hydroxy, oxo, aryloxy, aryl, halogen, aralkyl, heteroaryl, heterocyclyl, heteroarylalkyl, or heterocyclylalkyl; or (CH2)1-4NRxRy (Rx and Ry = H, alkyl, alkenyl, alkynyl, cycloalkyl, aryl, aralkyl, heteroaryl, heterocyclyl, heterocyclylalkyl, heteroarylalkyl, -YRu (Y is C(O), C(S) or SO2 and Ru is alkyl, alkenyl, alkynyl, aryl, aralkyl, heteroaryl, heterocyclyl,

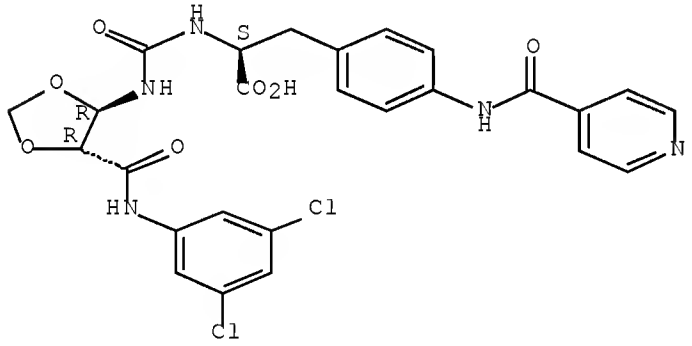
heterocyclylalkyl or heteroarylalkyl), -C(:T)NRu (T is O, S, -CH(NO2), -N(NO2) or -N(CN)) or -C(O)ORu); R5 and R6 = H, alkyl, cycloalkyl, heterocyclyl, heteroarylalkyl, heterocyclylalkyl, aryl, or aralkyl; or R5 and R6 may together join to form a cycloalkyl ring. Methods of preparation of I and intermediates are claimed and 14 example prepns. are included. For example, II was prepared in 4 steps starting from di-Et (4R,5R)-[1,3]dioxolane-4,5-dicarboxylate and involving intermediates (4R,5R)-[1,3]dioxolane-4,5-dicarboxylic acid monoethyl ester, (4R,5R)-5-[[(S)-1-(benzyloxycarbonyl)-2-(4-hydroxyphenyl)ethyl]carbamoyl]- [1,3]dioxolane-4-carboxylic acid Et ester, and (4R,5R)-5-[[(S)-1- (benzyloxycarbonyl)-2-[4-(2,6-dichlorobenzyloxy)phenyl]ethyl]carbamoyl]- [1,3]dioxolane-4-carboxylic acid Et ester.

IT 848210-00-4P, (S)-2-[[[(4R,5R)-5-(3,5-Dichlorophenylcarbamoyl)-[1,3]dioxolan-4-yl]carbamoyl]amino]-3-[4-[[(pyridin-4-yl)carbonyl]amino]phenyl]propionic acid
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(drug candidate; preparation of dioxolane derivs. as cell adhesion inhibitors with therapeutic uses)

RN 848210-00-4 CAPLUS

CN L-Phenylalanine, N-[[[(4R,5R)-5-[[(3,5-dichlorophenyl)amino]carbonyl]-1,3-dioxolan-4-yl]amino]carbonyl]-4-[(4-pyridinylcarbonyl)amino]- (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2002:555472 CAPLUS Full-text
DN 137:125085
TI Preparation of urea derivatives as integrin alpha 4 antagonists
IN Jimenez Mayorga, Juan Miguel; Bach Tana, Jordi; Ontoria Ontoria, Jesus Maria; Navarro Romero, Eloisa
PA Almirall Prodesfarma, S.A., Spain
SO PCT Int. Appl., 107 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

PI	WO 2002057242	A2	20020725	WO 2002-EP331	20020115
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	EE 200300327	A	20031015	EE 2003-327	20020115
	EP 1383750	A2	20040128	EP 2002-710010	20020115
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	NZ 527031	A	20050930	NZ 2002-527031	20020115
	RU 2296120	C2	20070327	RU 2003-125367	20020115
	AT 374191	T	20071015	AT 2002-710010	20020115
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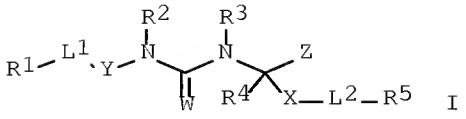

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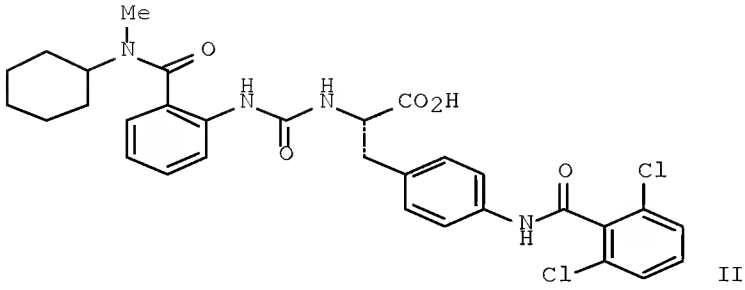


II

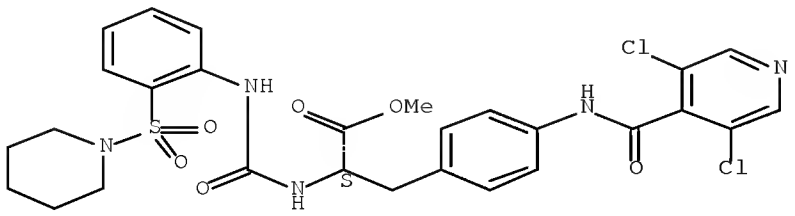
AB The title compds. [I; R1 = alkyl, alkenyl, cycloalkyl, etc.; R2 = H, alkyl, alkylaryl, etc.; R3, R4 = H, alkyl; R2 and R3, together with the atoms to which they are attached, may form a 4-8 membered ring; R5 = alkyl, cycloalkyl, aryl, etc.; L1 = S, SO, SO2, CO, etc.; L2 = a bond, O, S, SO, etc.; W = O, S, (un)substituted NH, N(CN); X = (CH2)naryl, (CH2)nheteroaryl; Y = monocyclic (hetero)aryl; Z = CONH2, CO2R, PO3R, SO3R, etc.; R = H, alkyl, cycloalkyl, etc.; n = 0-2], novel antagonists of α4β1 integrin and/or α4β7 integrin useful in preventing or treating an immune or inflammatory diseases or disorders, were prepared and formulated. Thus, reacting 2-amino-N-cyclohexyl-N-methylbenzamide with (S)-3-[4-(2,6-dichlorobenzoylamino)phenyl]-2-isocyanatopropionic acid Me ester (preparation given) in CH2Cl2 (yield 50%) followed by hydrolysis of the intermediate ester (77%) afforded (S)-II which showed IC50 of < 100 nM in the α4β1 assay.

IT 444086-35-5P 444086-37-7P 444086-39-9P
444086-41-3P 444086-43-5P 444086-52-6P
444086-61-7P 444086-63-9P 444086-65-1P
444086-67-3P 444086-69-5P 444086-71-9P
444086-73-1P
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(preparation of ureas as integrin alpha 4 antagonists)

RN 444086-35-5 CAPLUS

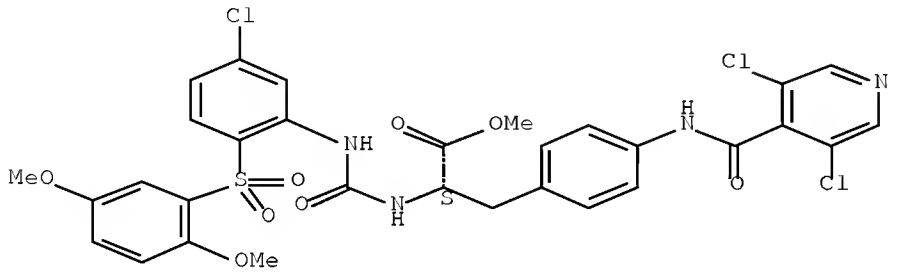
CN L-Phenylalanine, 4-[[(3,5-dichloro-4-pyridinyl)carbonyl]amino]-N-[[[2-(1-piperidinylsulfonyl)phenyl]amino]carbonyl]-, methyl ester (CA INDEX NAME)

Absolute stereochemistry.



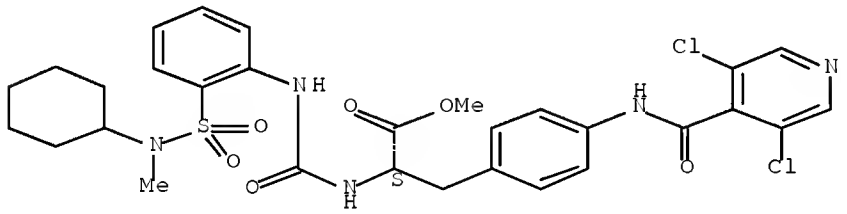
RN 444086-37-7 CAPLUS
CN L-Phenylalanine, N-[[[5-chloro-2-[(2,5-dimethoxyphenyl)sulfonyl]phenyl]amino]carbonyl]-4-[[(3,5-dichloro-4-pyridinyl)carbonyl]amino]-, methyl ester (CA INDEX NAME)

Absolute stereochemistry.



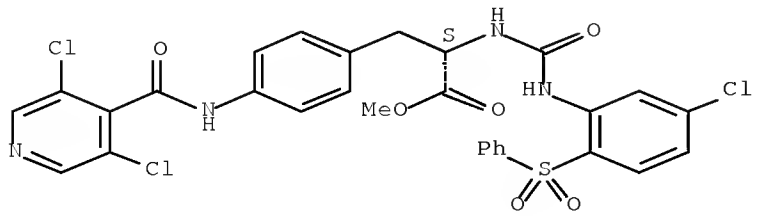
RN 444086-39-9 CAPLUS
CN L-Phenylalanine, N-[[[2-[(cyclohexylmethylamino)sulfonyl]phenyl]amino]carbonyl]-4-[[(3,5-dichloro-4-pyridinyl)carbonyl]amino]-, methyl ester (CA INDEX NAME)

Absolute stereochemistry.



RN 444086-41-3 CAPLUS
CN L-Phenylalanine, N-[[[5-chloro-2-(phenylsulfonyl)phenyl]amino]carbonyl]-4-[[(3,5-dichloro-4-pyridinyl)carbonyl]amino]-, methyl ester (CA INDEX NAME)

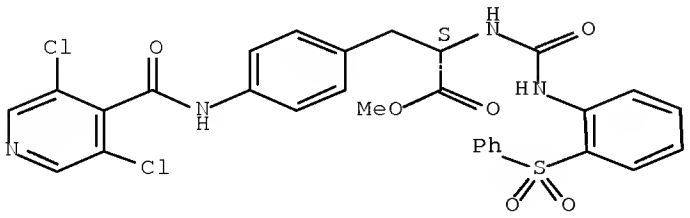
Absolute stereochemistry.



RN 444086-43-5 CAPLUS

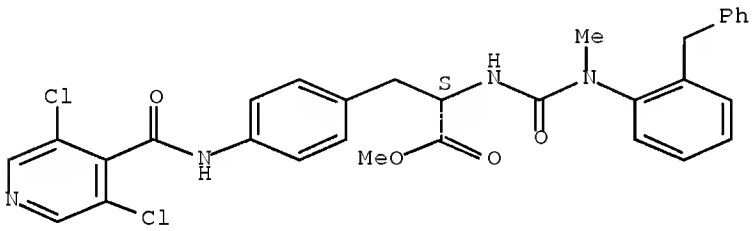
CN L-Phenylalanine, 4-[[(3,5-dichloro-4-pyridinyl)carbonyl]amino]-N-[[[2-(phenylsulfonyl)phenyl]amino]carbonyl]-, methyl ester (CA INDEX NAME)

Absolute stereochemistry.



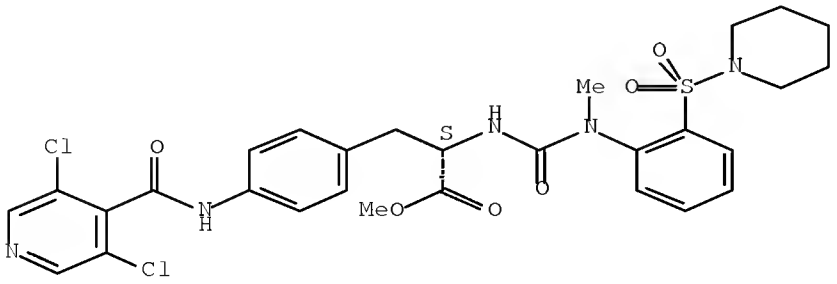
RN 444086-52-6 CAPLUS
CN L-Phenylalanine, 4-[[(3,5-dichloro-4-pyridinyl)carbonyl]amino]-N-[[methyl[2-(phenylmethyl)phenyl]amino]carbonyl]-, methyl ester (CA INDEX NAME)

Absolute stereochemistry.



RN 444086-61-7 CAPLUS
CN L-Phenylalanine, 4-[[(3,5-dichloro-4-pyridinyl)carbonyl]amino]-N-[[methyl[2-(1-piperidinylsulfonyl)phenyl]amino]carbonyl]-, methyl ester (CA INDEX NAME)

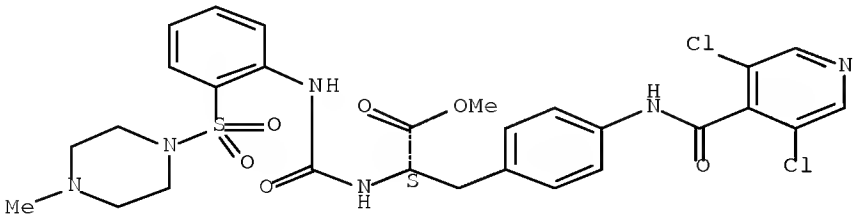
Absolute stereochemistry.



RN 444086-63-9 CAPLUS
CN L-Phenylalanine, 4-[[(3,5-dichloro-4-pyridinyl)carbonyl]amino]-N-[[[2-[(4-

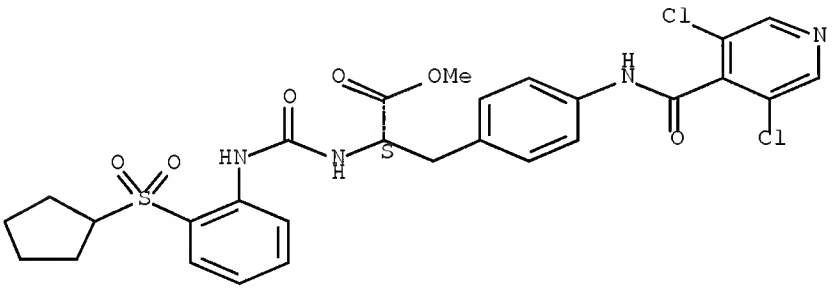
methyl-1-piperazinyl)sulfonyl]phenyl]amino]carbonyl]-, methyl ester (CA INDEX NAME)

Absolute stereochemistry.



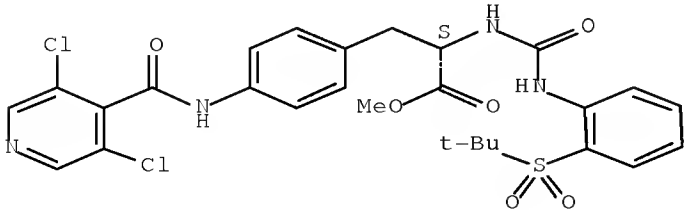
RN 444086-65-1 CAPLUS
CN L-Phenylalanine, N-[[[2-(cyclopentylsulfonyl)phenyl]amino]carbonyl]-4-[[(3,5-dichloro-4-pyridinyl)carbonyl]amino]-, methyl ester (CA INDEX NAME)

Absolute stereochemistry.



RN 444086-67-3 CAPLUS
CN L-Phenylalanine, 4-[[(3,5-dichloro-4-pyridinyl)carbonyl]amino]-N-[[[2-[(1,1-dimethylethyl)sulfonyl]phenyl]amino]carbonyl]-, methyl ester (CA INDEX NAME)

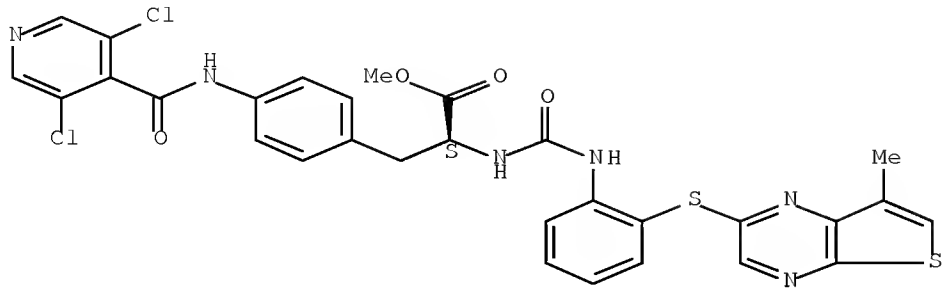
Absolute stereochemistry.



RN 444086-69-5 CAPLUS
CN L-Phenylalanine, 4-[[(3,5-dichloro-4-pyridinyl)carbonyl]amino]-N-[[[2-[(7-methylthieno[2,3-b]pyrazin-2-yl)thio]phenyl]amino]carbonyl]-, methyl ester

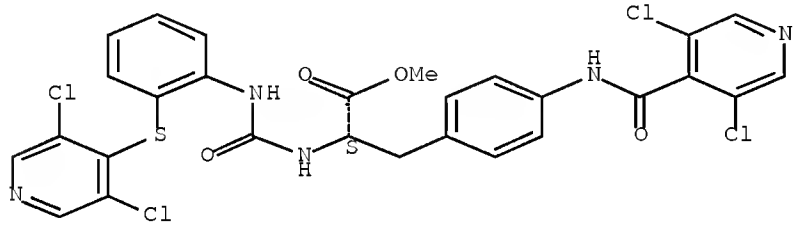
(CA INDEX NAME)

Absolute stereochemistry.



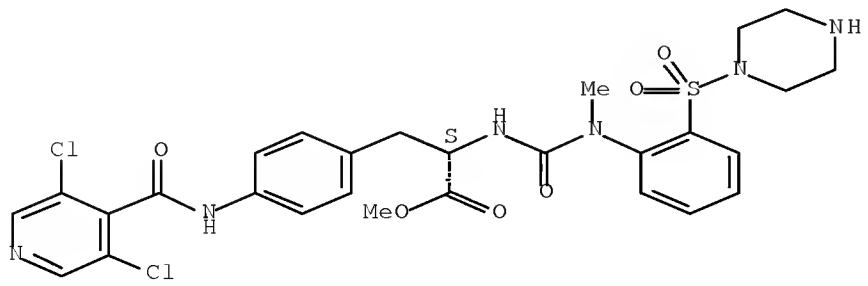
RN 444086-71-9 CAPLUS
CN L-Phenylalanine, 4-[[(3,5-dichloro-4-pyridinyl)carbonyl]amino]-N-[[[2-[(3,5-dichloro-4-pyridinyl)thio]phenyl]amino]carbonyl]-, methyl ester (CA INDEX NAME)

Absolute stereochemistry.



RN 444086-73-1 CAPLUS
CN L-Phenylalanine, 4-[[(3,5-dichloro-4-pyridinyl)carbonyl]amino]-N-[[methyl[2-(1-piperazinylsulfonyl)phenyl]amino]carbonyl]-, methyl ester (CA INDEX NAME)

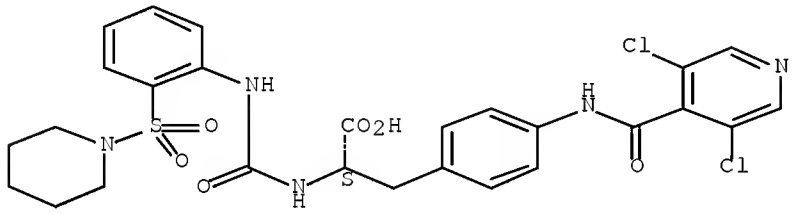
Absolute stereochemistry.



IT 444086-36-6P 444086-38-8P 444086-40-2P
444086-42-4P 444086-44-6P 444086-51-5P
444086-53-7P 444086-54-8P 444086-55-9P
444086-56-0P 444086-57-1P 444086-58-2P
444086-59-3P 444086-60-6P 444086-62-8P
444086-64-0P 444086-66-2P 444086-68-4P
444086-70-8P 444086-72-0P 444086-74-2P
444086-75-3P 444086-76-4P 444086-77-5P
444086-78-6P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of ureas as integrin alpha 4 antagonists)

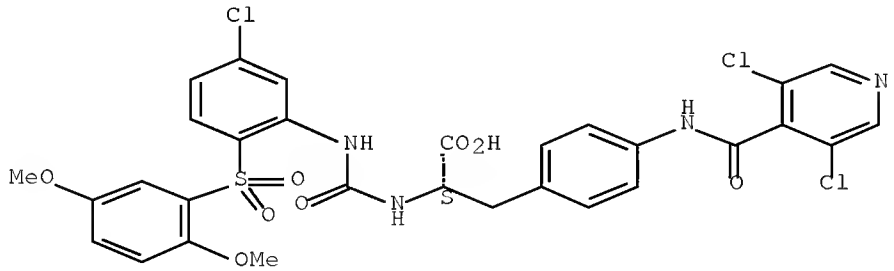
RN 444086-36-6 CAPLUS
CN L-Phenylalanine, 4-[[(3,5-dichloro-4-pyridinyl)carbonyl]amino]-N-[[[2-(1-piperidinylsulfonyl)phenyl]amino]carbonyl]- (CA INDEX NAME)

Absolute stereochemistry.



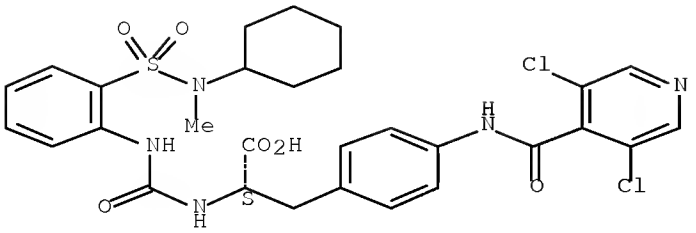
RN 444086-38-8 CAPLUS
CN L-Phenylalanine, N-[[[5-chloro-2-[(2,5-dimethoxyphenyl)sulfonyl]phenyl]amino]carbonyl]-4-[[(3,5-dichloro-4-pyridinyl)carbonyl]amino]- (CA INDEX NAME)

Absolute stereochemistry.



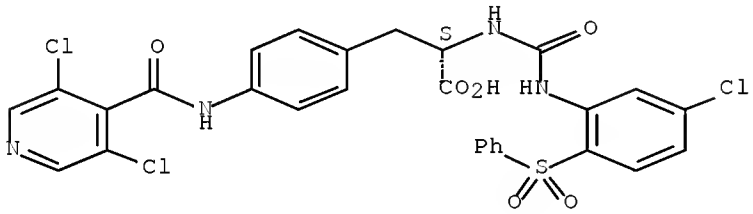
RN 444086-40-2 CAPLUS
CN L-Phenylalanine, N-[[[2-[(cyclohexylmethylamino)sulfonyl]phenyl]amino]carbonyl]-4-[[(3,5-dichloro-4-pyridinyl)carbonyl]amino]- (CA INDEX NAME)

Absolute stereochemistry.



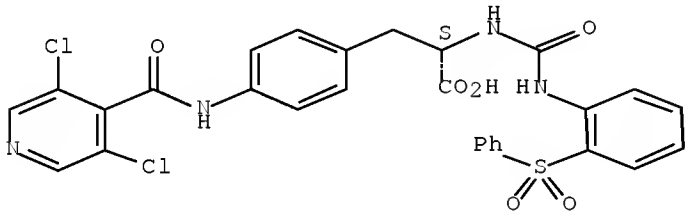
RN 444086-42-4 CAPLUS
CN L-Phenylalanine, N-[[[5-chloro-2-(phenylsulfonyl)phenyl]amino]carbonyl]-4-[[(3,5-dichloro-4-pyridinyl)carbonyl]amino]- (CA INDEX NAME)

Absolute stereochemistry.



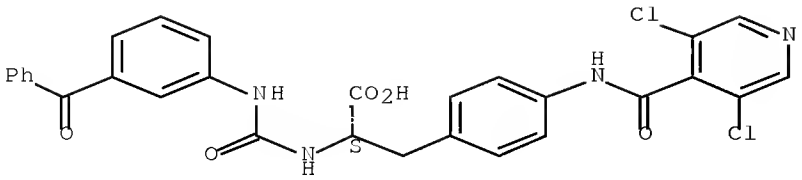
RN 444086-44-6 CAPLUS
CN L-Phenylalanine, 4-[[(3,5-dichloro-4-pyridinyl)carbonyl]amino]-N-[[[2-(phenylsulfonyl)phenyl]amino]carbonyl]- (CA INDEX NAME)

Absolute stereochemistry.



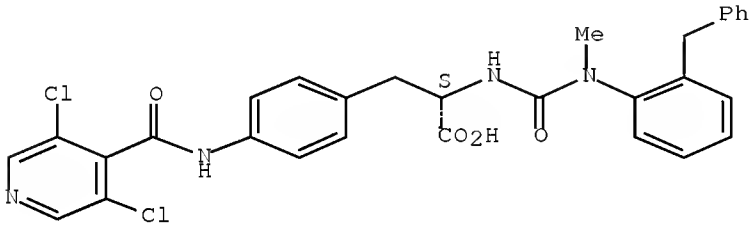
RN 444086-51-5 CAPLUS
CN L-Phenylalanine, N-[[(3-benzoylphenyl)amino]carbonyl]-4-[[(3,5-dichloro-4-pyridinyl)carbonyl]amino]- (CA INDEX NAME)

Absolute stereochemistry.



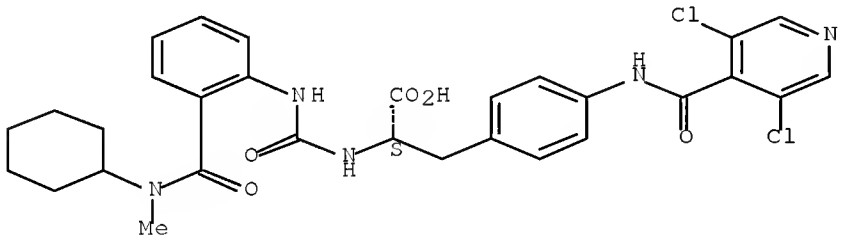
RN 444086-53-7 CAPLUS
CN L-Phenylalanine, 4-[[(3,5-dichloro-4-pyridinyl)carbonyl]amino]-N-[[methyl[2-(phenylmethyl)phenyl]amino]carbonyl]- (CA INDEX NAME)

Absolute stereochemistry.



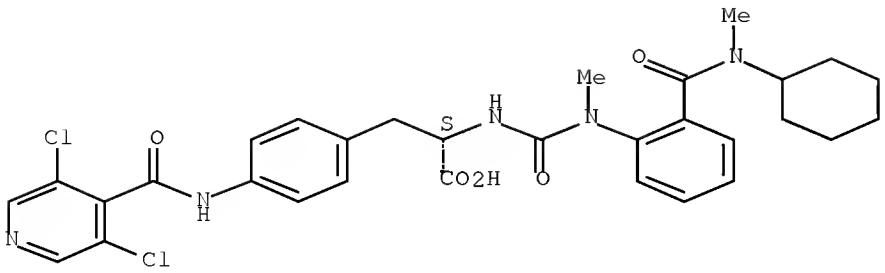
RN 444086-54-8 CAPLUS
CN L-Phenylalanine, N-[[[2-[(cyclohexylmethylamino)carbonyl]phenyl]amino]carbonyl]-4-[[(3,5-dichloro-4-pyridinyl)carbonyl]amino]- (CA INDEX NAME)

Absolute stereochemistry.



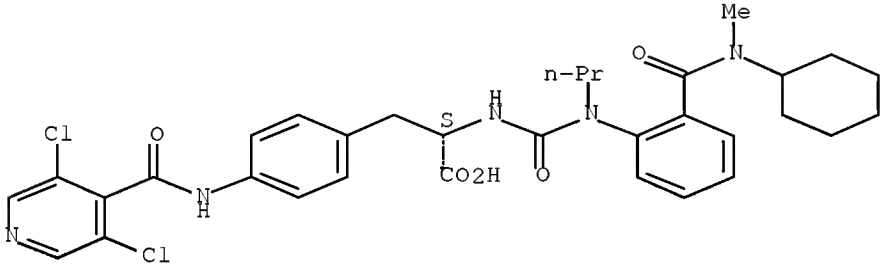
RN 444086-55-9 CAPLUS
CN L-Phenylalanine, N-[[[2-[(cyclohexylmethylamino)carbonyl]phenyl]methylamino]carbonyl]-4-[[(3,5-dichloro-4-pyridinyl)carbonyl]amino]- (CA INDEX NAME)

Absolute stereochemistry.



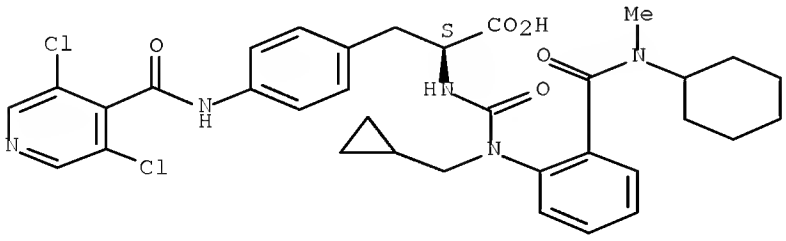
RN 444086-56-0 CAPLUS
CN L-Phenylalanine, N-[[[2-[(cyclohexylmethylamino)carbonyl]phenyl]propylamino]carbonyl]-4-[[(3,5-dichloro-4-pyridinyl)carbonyl]amino]- (CA INDEX NAME)

Absolute stereochemistry.



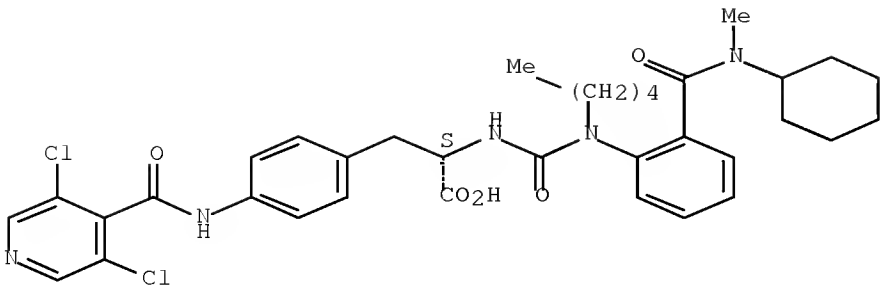
RN 444086-57-1 CAPLUS
CN L-Phenylalanine, N-[[[2-[(cyclohexylmethylamino)carbonyl]phenyl](cyclopropylmethyl)amino]carbonyl]-4-[[(3,5-dichloro-4-pyridinyl)carbonyl]amino]- (CA INDEX NAME)

Absolute stereochemistry.



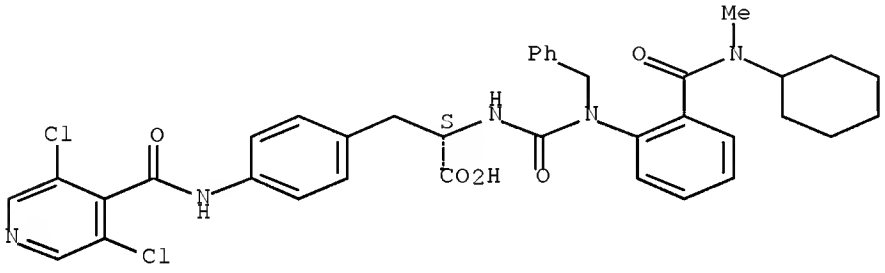
RN 444086-58-2 CAPLUS
CN L-Phenylalanine, N-[[[2-[(cyclohexylmethylamino)carbonyl]phenyl]pentylamino]carbonyl]-4-[[(3,5-dichloro-4-pyridinyl)carbonyl]amino]- (CA INDEX NAME)

Absolute stereochemistry.



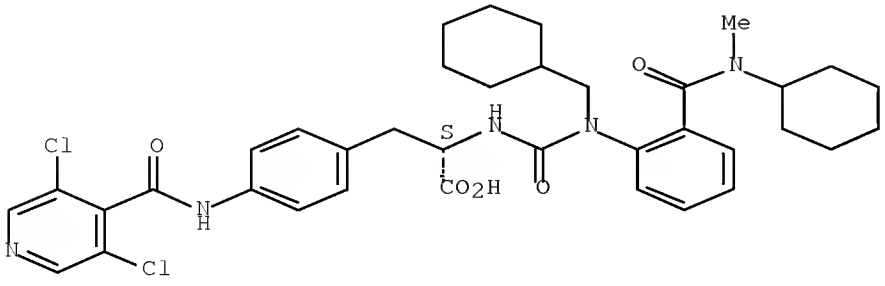
RN 444086-59-3 CAPLUS
CN L-Phenylalanine, N-[[[2-[(cyclohexylmethylamino)carbonyl]phenyl](phenylmethyl)amino]carbonyl]-4-[[(3,5-dichloro-4-pyridinyl)carbonyl]amino]- (CA INDEX NAME)

Absolute stereochemistry.



RN 444086-60-6 CAPLUS
CN L-Phenylalanine, N-[[(cyclohexylmethyl)[2-[(cyclohexylmethylamino)carbonyl]phenyl]amino]carbonyl]-4-[[(3,5-dichloro-4-pyridinyl)carbonyl]amino]- (CA INDEX NAME)

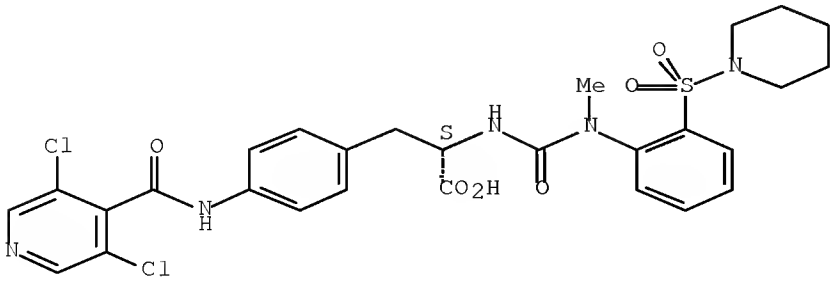
Absolute stereochemistry.



RN 444086-62-8 CAPLUS
CN L-Phenylalanine, 4-[[(3,5-dichloro-4-pyridinyl)carbonyl]amino]-N-

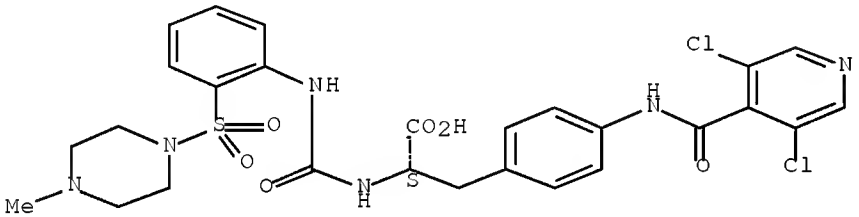
[[methyl[2-(1-piperidinylsulfonyl)phenyl]amino]carbonyl]- (CA INDEX NAME)

Absolute stereochemistry.



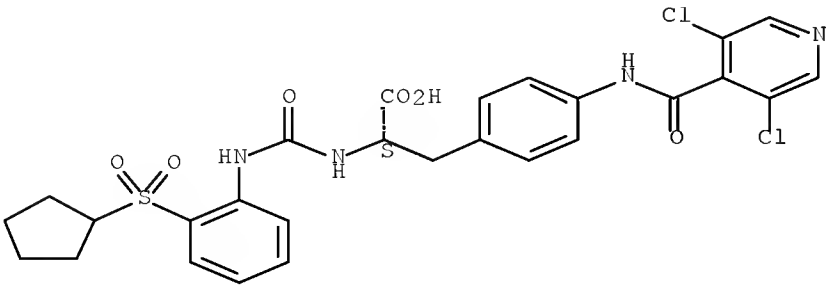
RN 444086-64-0 CAPLUS
CN L-Phenylalanine, 4-[[(3,5-dichloro-4-pyridinyl)carbonyl]amino]-N-[[[2-[(4-methyl-1-piperazinyl)sulfonyl]phenyl]amino]carbonyl]- (CA INDEX NAME)

Absolute stereochemistry.



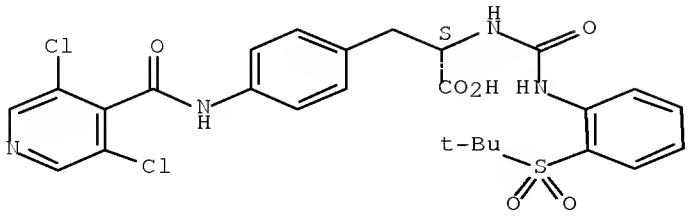
RN 444086-66-2 CAPLUS
CN L-Phenylalanine, N-[[[2-(cyclopentylsulfonyl)phenyl]amino]carbonyl]-4-[[(3,5-dichloro-4-pyridinyl)carbonyl]amino]- (CA INDEX NAME)

Absolute stereochemistry.



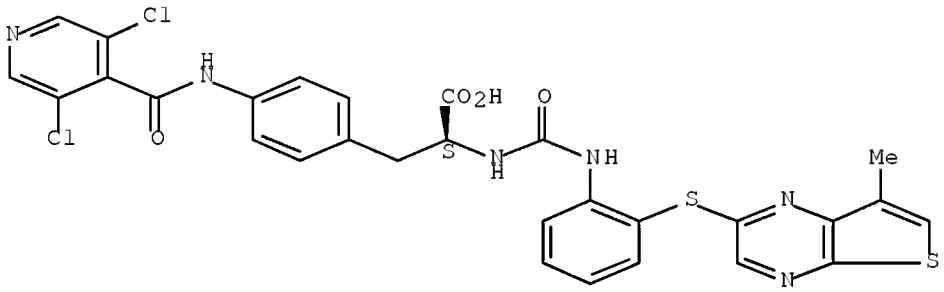
RN 444086-68-4 CAPLUS
CN L-Phenylalanine, 4-[[(3,5-dichloro-4-pyridinyl)carbonyl]amino]-N-[[[2-[(1,1-dimethylethyl)sulfonyl]phenyl]amino]carbonyl]- (CA INDEX NAME)

Absolute stereochemistry.



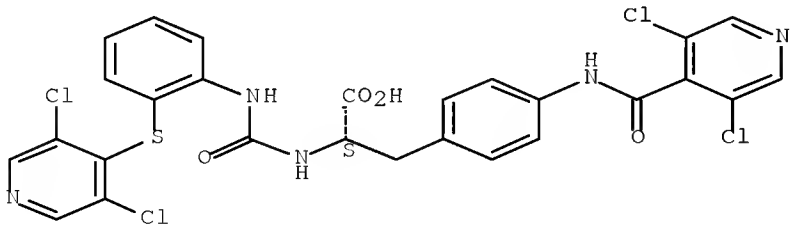
RN 444086-70-8 CAPLUS
CN L-Phenylalanine, 4-[[(3,5-dichloro-4-pyridinyl)carbonyl]amino]-N-[[[2-[(7-methylthieno[2,3-b]pyrazin-2-yl)thio]phenyl]amino]carbonyl]- (CA INDEX NAME)

Absolute stereochemistry.



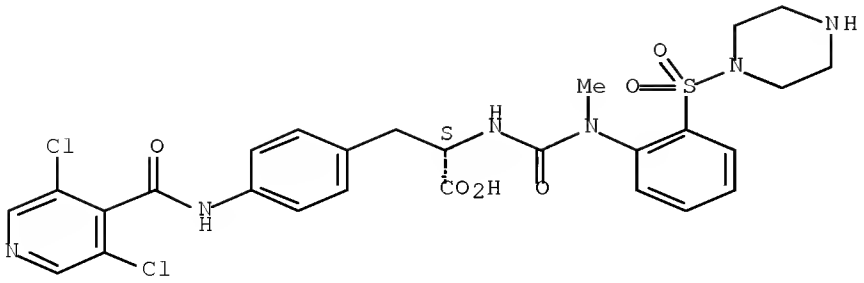
RN 444086-72-0 CAPLUS
CN L-Phenylalanine, 4-[[(3,5-dichloro-4-pyridinyl)carbonyl]amino]-N-[[[2-[(3,5-dichloro-4-pyridinyl)thio]phenyl]amino]carbonyl]- (CA INDEX NAME)

Absolute stereochemistry.



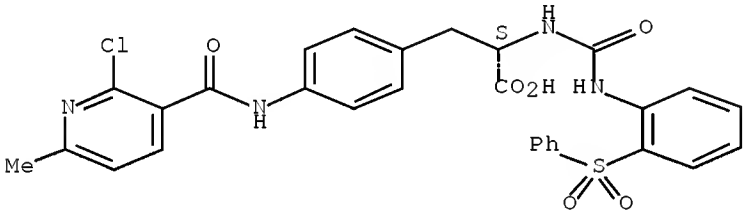
RN 444086-74-2 CAPLUS
CN L-Phenylalanine, 4-[[(3,5-dichloro-4-pyridinyl)carbonyl]amino]-N-[[methyl[2-(1-piperazinylsulfonyl)phenyl]amino]carbonyl]- (CA INDEX NAME)

Absolute stereochemistry.



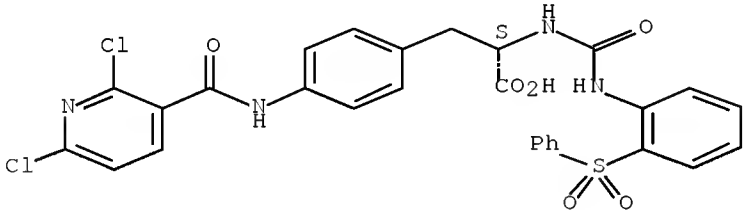
RN 444086-75-3 CAPLUS
CN L-Phenylalanine, 4-[[(2-chloro-6-methyl-3-pyridinyl)carbonyl]amino]-N-[[[2-(phenylsulfonyl)phenyl]amino]carbonyl]- (CA INDEX NAME)

Absolute stereochemistry.



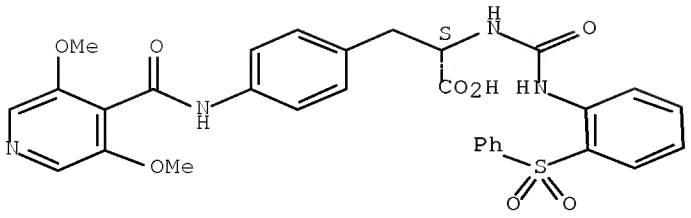
RN 444086-76-4 CAPLUS
CN L-Phenylalanine, 4-[[(2,6-dichloro-3-pyridinyl)carbonyl]amino]-N-[[[2-(phenylsulfonyl)phenyl]amino]carbonyl]- (CA INDEX NAME)

Absolute stereochemistry.



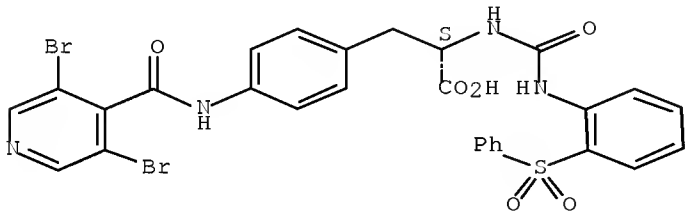
RN 444086-77-5 CAPLUS
CN L-Phenylalanine, 4-[[(3,5-dimethoxy-4-pyridinyl)carbonyl]amino]-N-[[[2-(phenylsulfonyl)phenyl]amino]carbonyl]- (CA INDEX NAME)

Absolute stereochemistry.



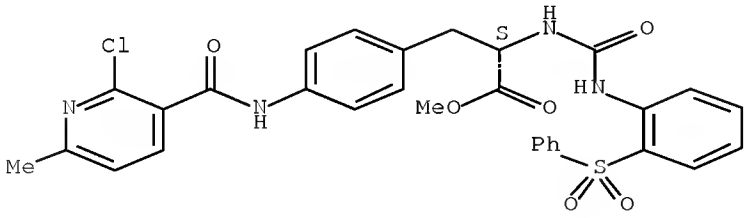
RN 444086-78-6 CAPLUS
CN L-Phenylalanine, 4-[[(3,5-dibromo-4-pyridinyl)carbonyl]amino]-N-[[[2-(phenylsulfonyl)phenyl]amino]carbonyl]- (CA INDEX NAME)

Absolute stereochemistry.



IT 444087-42-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of ureas as integrin alpha 4 antagonists)
RN 444087-42-7 CAPLUS
CN L-Phenylalanine, 4-[[(2-chloro-6-methyl-3-pyridinyl)carbonyl]amino]-N-[[[2-(phenylsulfonyl)phenyl]amino]carbonyl]-, methyl ester (CA INDEX NAME)

Absolute stereochemistry.



L17 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2002:142667 CAPLUS Full-text
DN 136:200103
TI Preparation of (thio)urea moiety-containing heterocyclic compounds as VLA-4 antagonists
IN Fukui, Hideto; Ikegami, Satoru; Okuyama, Akihiko
PA Kaken Pharmaceutical Co., Ltd., Japan
SO PCT Int. Appl., 43 pp.

CODEN: PIXXD2
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2002014272	A1	20020221	WO 2001-JP6833	20010808
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RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2001077720	A	20020225	AU 2001-77720	20010808
PRAI JP 2000-241657	A	20000809		
WO 2001-JP6833	W	20010808		

OS MARPAT 136:200103
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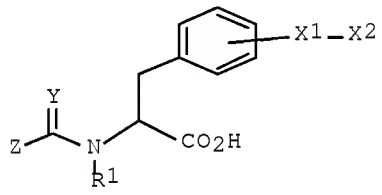


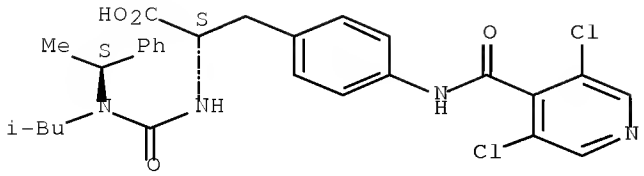
I

AB The title compds. I [R1 = H, alkyl, etc.; X1 = single bond, C.tplbond.C, etc.; Y = O, etc.; Z = NR7R8, etc.; R7, R8 = H, hydrocarbon, etc.; X2 = heterocyclic ring (generic structure given); further details on said heterocyclic ring are given] are prepared A process for the preparation of I is claimed. In an assay for inhibition of VLA-4/VCAM-1 adhesion, 3-[4-[(3,5-dichloropyridine-4-carbonyl)amino]phenyl]-2-(S)-[3-isobutyl-3- [1(S)-phenylethyl]ureido]propionic acid showed IC50 of 1.1 nM.

IT 401470-70-0P 401470-72-2P 401470-73-3P
401470-74-4P 401470-75-5P 401470-84-6P
401470-85-7P 401470-86-8P 401470-87-9P
401470-88-0P 401470-89-1P 401470-90-4P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of (thio)urea moiety-containing heterocyclic compds. as VLA-4 antagonists)

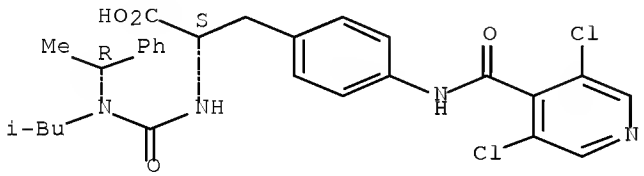
RN 401470-70-0 CAPLUS
CN L-Phenylalanine, 4-[[(3,5-dichloro-4-pyridinyl)carbonyl]amino]-N-[[(2-methylpropyl)[(1S)-1-phenylethyl]amino]carbonyl]- (CA INDEX NAME)

Absolute stereochemistry.



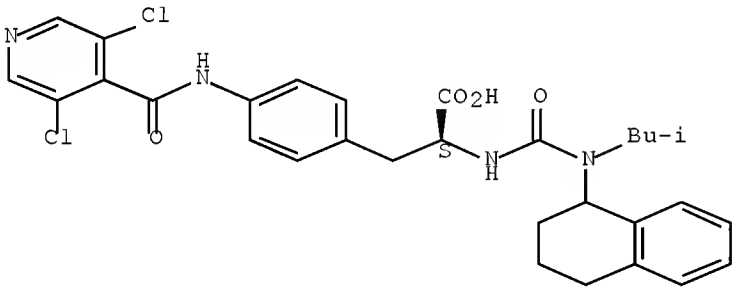
RN 401470-72-2 CAPLUS
CN L-Phenylalanine, 4-[[(3,5-dichloro-4-pyridinyl)carbonyl]amino]-N-[[(2-methylpropyl)[(1R)-1-phenylethyl]amino]carbonyl]- (CA INDEX NAME)

Absolute stereochemistry.



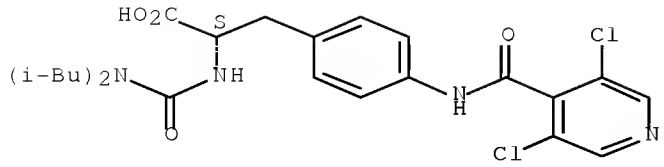
RN 401470-73-3 CAPLUS
CN L-Phenylalanine, 4-[[(3,5-dichloro-4-pyridinyl)carbonyl]amino]-N-[[(2-methylpropyl)(1,2,3,4-tetrahydro-1-naphthalenyl)amino]carbonyl]- (CA INDEX NAME)

Absolute stereochemistry.



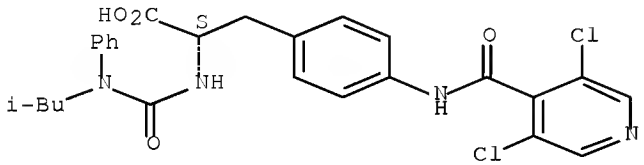
RN 401470-74-4 CAPLUS
CN L-Phenylalanine, N-[[bis(2-methylpropyl)amino]carbonyl]-4-[[(3,5-dichloro-4-pyridinyl)carbonyl]amino]- (CA INDEX NAME)

Absolute stereochemistry.



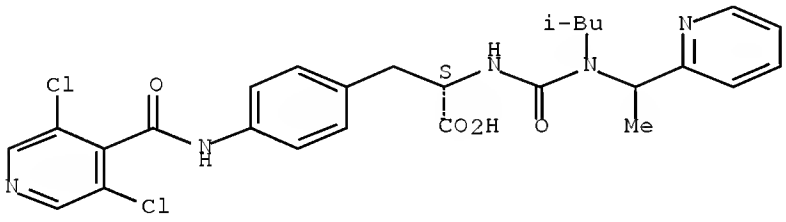
RN 401470-75-5 CAPLUS
CN L-Phenylalanine, 4-[[(3,5-dichloro-4-pyridinyl)carbonyl]amino]-N-[[(2-methylpropyl)phenylamino]carbonyl]- (CA INDEX NAME)

Absolute stereochemistry.



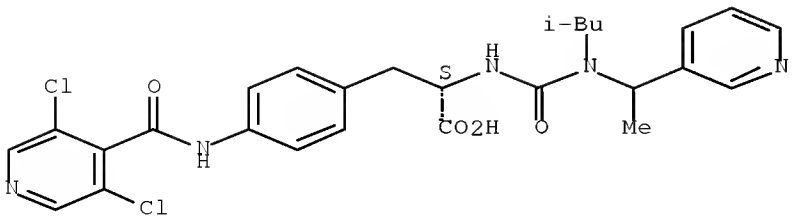
RN 401470-84-6 CAPLUS
CN L-Phenylalanine, 4-[[(3,5-dichloro-4-pyridinyl)carbonyl]amino]-N-[[(2-methylpropyl)[1-(2-pyridinyl)ethyl]amino]carbonyl]- (CA INDEX NAME)

Absolute stereochemistry.



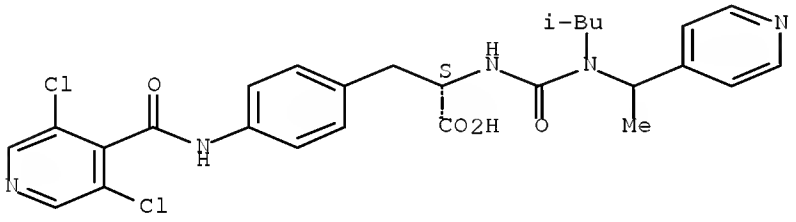
RN 401470-85-7 CAPLUS
CN L-Phenylalanine, 4-[[(3,5-dichloro-4-pyridinyl)carbonyl]amino]-N-[[(2-methylpropyl)[1-(3-pyridinyl)ethyl]amino]carbonyl]- (CA INDEX NAME)

Absolute stereochemistry.



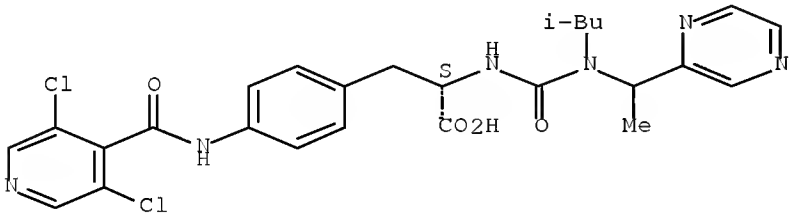
RN 401470-86-8 CAPLUS
CN L-Phenylalanine, 4-[[(3,5-dichloro-4-pyridinyl)carbonyl]amino]-N-[[(2-methylpropyl)[1-(4-pyridinyl)ethyl]amino]carbonyl]- (CA INDEX NAME)

Absolute stereochemistry.



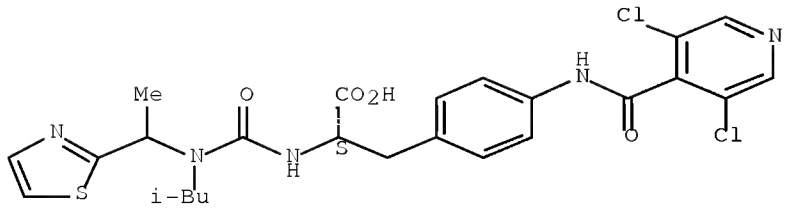
RN 401470-87-9 CAPLUS
CN L-Phenylalanine, 4-[[(3,5-dichloro-4-pyridinyl)carbonyl]amino]-N-[[(2-methylpropyl)(1-pyrazinylethyl)amino]carbonyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



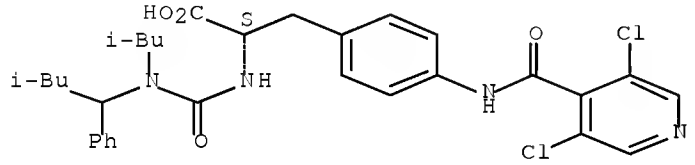
RN 401470-88-0 CAPLUS
CN L-Phenylalanine, 4-[[(3,5-dichloro-4-pyridinyl)carbonyl]amino]-N-[[(2-methylpropyl)[1-(2-thiazolyl)ethyl]amino]carbonyl]- (CA INDEX NAME)

Absolute stereochemistry.



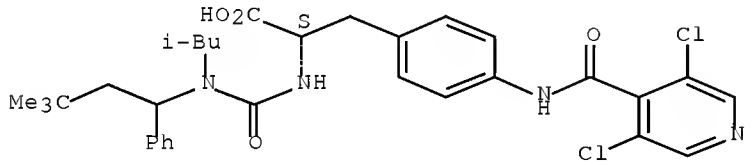
RN 401470-89-1 CAPLUS
CN L-Phenylalanine, 4-[[(3,5-dichloro-4-pyridinyl)carbonyl]amino]-N-[[(3-methyl-1-phenylbutyl)(2-methylpropyl)amino]carbonyl]- (CA INDEX NAME)

Absolute stereochemistry.



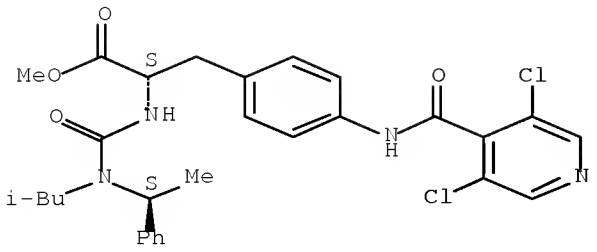
RN 401470-90-4 CAPLUS
CN L-Phenylalanine, 4-[[(3,5-dichloro-4-pyridinyl)carbonyl]amino]-N-[[(3,3-dimethyl-1-phenylbutyl)(2-methylpropyl)amino]carbonyl]- (CA INDEX NAME)

Absolute stereochemistry.



IT 401471-09-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of (thio)urea moiety-containing heterocyclic compds. as VLA-4 antagonists)
RN 401471-09-8 CAPLUS
CN L-Phenylalanine, 4-[[(3,5-dichloro-4-pyridinyl)carbonyl]amino]-N-[[(2-methylpropyl)[(1S)-1-phenylethyl]amino]carbonyl]-, methyl ester (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1999:795785 CAPLUS Full-text
DN 132:36028
TI Preparation of phenylalanine derivatives as integrin inhibitors
IN Porter, John Robert; Head, John Clifford; Warrellow, Graham John; Archibald, Sarah Catherine
PA Celltech Therapeutics Limited, UK
SO PCT Int. Appl., 49 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

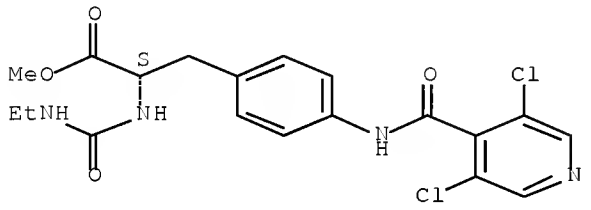
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9964390	A1	19991216	WO 1999-GB1758	19990604
	W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	AU 9942765	A	19991230	AU 1999-42765	19990604
	EP 1082294	A1	20010314	EP 1999-955469	19990604
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	JP 2002517480	T	20020618	JP 2000-553400	19990604
	US 6911451	B1	20050628	US 1999-326020	19990604
PRAI	GB 1998-12088	A	19980605		
	WO 1999-GB1758	W	19990604		

OS MARPAT 132:36028
AB Phenylalanine derivs. p-[R1(Alk1)r(L1)s]C6H4(Alk2)mCRR2X1R4 [R is a carboxylic acid or derivative; R1 = (un)substituted cycloaliph., polycycloaliph., heterocycloaliph., polyheterocycloaliph., aromatic, or heteroarom. group; Alk1 = (un)substituted aliphatic or heteroaliph. chain; L1 is a linker atom or group; r, s, m = 0 or 1; Alk2 = alkylene; R2 = H, Me; X1 = NR3CO, NR3SO2, NR3CO2, or NR3CONR3a (R3, R3a = H or alkyl); R4 = (un)substituted aliphatic cycloaliph., or polycycloaliph. group] were prepared for use as α4 integrin inhibitors. Thus, N-isobutyryl-N'-(3,5- dichloroisonicotinoyl)-L-4-aminophenylalanine was prepared via acylation/saponification of N'-(3,5-dichloroisonicotinoyl)-L-4-aminophenylalanine Me ester. The compds. of the

invention generally have IC50 values in the α4β1 and α4β7 assays of 1 μM and below.

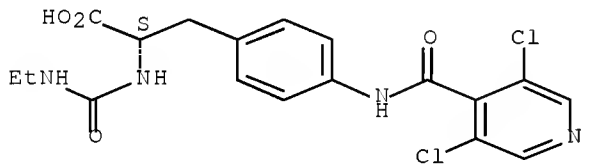
IT 252328-03-3P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(preparation of phenylalanine derivs. as integrin inhibitors)
RN 252328-03-3 CAPLUS
CN L-Phenylalanine, 4-[[(3,5-dichloro-4-pyridinyl)carbonyl]amino]-N-[(ethylamino)carbonyl]-, methyl ester (CA INDEX NAME)

Absolute stereochemistry.



IT 252328-04-4P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of phenylalanine derivs. as integrin inhibitors)
RN 252328-04-4 CAPLUS
CN L-Phenylalanine, 4-[[(3,5-dichloro-4-pyridinyl)carbonyl]amino]-N-[(ethylamino)carbonyl]- (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> log hold

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	22.28	459.09
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-3.20	-5.60

SESSION WILL BE HELD FOR 120 MINUTES
STN INTERNATIONAL SESSION SUSPENDED AT 16:51:16 ON 11 JUL 2008